

# IDAHO

## DEPARTMENT OF FISH AND GAME

**Jerry M. Conley, Director**

**MULLAN HATCHERY**

**Annual Report**



**1 October 1983 - 30 September 1984**

**by**

**Ivan Talbott  
Fish Hatchery Superintendent I**

**June 1985**

## TABLE OF CONTENTS

	<u>Page</u>
ABSTRACT .....	1
OBJECTIVES .....	2
INTRODUCTION .....	2
FISH PRODUCTION .....	3
Kokanee .....	3
Kootenai River Rainbow .....	3
Fall Chinook .....	3
FISH RELEASES AND REDISTRIBUTION .....	3
FISH HEALTH .....	3
SPAWNTAKING OPERATIONS .....	5
FISH FEED UTILIZED .....	5
IMPROVEMENTS .....	5
MISCELLANEOUS ACTIVITIES .....	5
 ACKNOWLEDGEMENTS .....	 6

## LIST OF TABLES

Table 1. Fish released October 1, 1983 - September 30, 1984. .	4
--	---

## **MULLAH HATCHERY**

### **Annual Report**

#### **ABSTRACT**

Mullan Hatchery produced 1,529,494 kokanee fry, 15,650 Kootenai River rainbow and released 24,576 fall chinook. The hatchery also acted as a redistribution station for 79,973 catchable rainbow from Hayspur Hatchery and American Falls Hatchery and 116,025 brown trout from Ashton Hatchery.

The hatchery crew provided support for the spawning activities for both the kokanee spawning in Granite Creek and the fall chinook spawning in Wolf Lodge Creek.

Author:

Ivan Talbott

Fish Hatchery Superintendent I

## OBJECTIVES

The objectives of the Mullan Hatchery were:

1. To rear kokanee for release in Pend Oreille Lake.
2. To provide support for the kokanee spawning activities on Granite Creek on Pend Oreille Lake.
3. To rear and release fall chinook in Coeur d'Alene Lake and other assigned lakes and reservoirs.
4. To rear Kootenai River rainbow to be released as two-year-old fish.
5. To receive catchable rainbows from American Falls Hatchery and Hayspur Hatchery for redistribution in the southern part of Region 1.

## INTRODUCTION

Mullan Hatchery **is** located four miles east of Mullan, Idaho and consists of:

- 3 raceways - 4 feet by 65 feet by 2 feet deep
- 2 raceways - 6 feet by 65 feet by 1 foot 8 inches deep
- 1 raceway - 12 feet by 65 feet by 1 foot 8 inches deep
- 2 raceways - 6 feet by 65 feet by 3 feet deep
- 1 pond - 30 feet by 168 feet by 3 feet deep
- 1 pond - 25 feet by 132 feet by 3 feet deep
- 1 pond - 35 feet by 78 feet by 3 feet deep
- 19 vats - 13 feet 6 inches by 2 feet 4 inches by 1 foot 8 inches deep

The hatchery receives water from the South Fork of the Coeur d'Alene River and the Little North Fork of the Coeur d'Alene River. The domestic water and the water for the incubators comes from a small unnamed creek to the south of the hatchery.

The hatchery requires three to four cfs from all three sources to operate. During the months of August, September and October, the water supply is low and is critical at times. The water temperature ranges from 33 F in January to 58 F in August.

The Mullan Hatchery buildings and grounds are owned by the Shoshone County Sportsmen Association. A mill levy is raised by the Shoshone County tax roll to pay for the maintenance of the buildings and grounds. The Idaho Department of Fish and Game staffs the permanent personnel and provides the trucks and fish production costs for the station.

## **FISH PRODUCTION**

### **Kokanee**

Kokanee are the primary species of fish produced at Mullan and are used to enhance the fishing on Pend Oreille Lake. In November and December, 2,179,856 eggs were taken at the trap at Granite Creek on Pend Oreille Lake and incubated at Mullan. Five hundred seventy-one thousand, nine hundred (571,900) fry were marked with Terramycin and returned to Granite Creek and the other 1,011,594 were released in the Clark Fork River at the new hatchery site for a total of 1,529,494 kokanee released in the 1983-84 fish year.

### **Kootenai River Rainbow**

The 15,650 Kootenai River rainbow that were reared at Mullan Hatchery were released as 1-plus age fish in Deer Creek, a tributary of the Kootenai River.

### **Fall Chinook**

Two hundred and ten thousand (210,000) size 1 and 5,100 size 3 fall chinook were received from Mackay Hatchery in June and were to be released in the fall. Fall chinook seem to grow very well in this hatchery situation, and except for the mortality problems that they had, the feed conversion would have been very good.

## **FISH RELEASES AND REDISTRIBUTION**

The Mullan Hatchery released 1,583,494 kokanee, 15,640 Kootenai River rainbow and 24,576 fall chinook that were reared at the hatchery. A total of 79,973 rainbow trout were transferred in from American Falls Hatchery and Hayspur Hatchery and 116,025 brown trout came from Ashton Hatchery. They were redistributed in the southern part of Region 1.

Fish released during the fish year are summarized in Table 1.

## **FISH HEALTH**

The size 1 fall chinook suffered a 51% mortality due, in part, to stress while transporting them and a light **infection** of Hexamita that caused them to go off feed and pin head out. Treatments with magnesium sulfate and Terramycin did not seem to help. When the pin heads were gone the rest of the fish made very good growth.

Table 1. Fish released October 1, 1983 - September 30, 1984.

Name of water	Cat. number	Pounds	Number	Origin	Size
<b><u>RAINBOW</u></b>					
Coeur d'Alene River	03-22	5,375	21,620	American Falls	3
S.F. Coeur d'Alene River	03-22-06	1,590	6,326	Hayspur	3
N.F. Coeur d'Alene River	03-22-08	1,550	6,090	Hayspur	3
St. Joe River	03-23	2,450	10,636	Hayspur	3
St. Maries River	03-23-01	2,285	8,637	Hayspur	3
Big Creek	03-23-20	350	1,505	Hayspur	3
Marble Creek	03-23-21	250	1,075	Hayspur	3
N.F. St. Joe River	03-23-32	1,575	6,803	Hayspur	3
Cocolalla	02-0156	600	2,040	Hayspur	3
Hauser	03-0101	600	2,040	Hayspur	3
Elsie	03-0119	650	2,865	American Falls	3
Day Pond	03-0120	170	578	Hayspur	3
Lower Glidden	03-0123	1,150	4,945	Hayspur	3
Dismal Lake	03-0138	125	537	Hayspur	3
Day Rock Pond	03-22-06-0013	570	2,023	Hayspur	3
Gold Creek Pond	03-22-0016	270	1,018	Hayspur	3
Eagle Pond	03-22-20	350	1,235	Hayspur	3
<b>Total rainbow</b>		19,910	79,973		
<b>KOKANEE</b>					
Granite Creek	02-21	172	571,900	Mullan	1
Clark Fork River	02-30	399	1,011,594	Mullan	1
<b>Total kokanee</b>		571	1,583,494		
<b>CHINOOK</b>					
Deadwood Reservoir	09-0117	300	1,500	Mackay	3
Bulltrout Lake	09-0136	75	1,050	Mackay	3
Grassy Mountain Lake #1	07-0138	18	342	Mackay	3
Disappointment Lake	07-0158	7	133	Mackay	3
Grassy Mountain Lake #2	07-0180	29	551	Mackay	3
Chesterfield Reservoir	05-0248	1,050	19,950	Mackay	3
Lost Valley Reservoir	08	75	1,050	Mackay	3
<b>Total chinook</b>		1,554	24,576		
<b>KOOTENAI RIVER RAINBOW TROUT</b>					
Deer Creek	01-16-02,	85	15,640	Mullan	1
<b>BROWN TROUT</b>					
Spokane River	03	575	100,625	Ashton	2
Palouse River	04	88	15,400	Ashton	2
<b>Total brown</b>		663	116,025		

The 5,100 size 3 fall chinook from Mackay broke with kidney disease and were destroyed.

The Kootenai River rainbow began to suffer a large mortality as sac fry in the incubators and continued until they were about 2,000 to the pound. Samples of fish were checked for virus and other pathogens. All were negative except that the gills were plugged with mucus although no bacteria were present. This lot of fish was treated with Terramycin as well as salt and Benzalkonium Chloride. There may be some environmental factors that caused problems for these fish. The fish reared in the 1982-83 fish year suffered a 75% mortality before being released as 1-plus age fish.

#### **SPAWNTAKING OPERATIONS**

The Mullan Hatchery crew provided support for the spawning activities for both the kokanee and fall chinook. Eighteen man-days were spent at the kokanee trap at Granite Creek on Pend Oreille Lake, and 2,179,856 late spawning kokanee eggs were brought back to the hatchery to be incubated. The fall chinook run of Wolf Lodge Creek on Coeur d'Alene Lake was trapped and 52,000 eggs were taken back to Mullan to be eyed-up and then sent to Mackay Hatchery to be hatched.

#### **FISH FEED UTILIZED**

The kokanee and Kootenai River rainbow were fed OMP starter mash and 1/32 pellets, and the fall chinook were fed Rangens 1/8 pellets and 5/32 crumbles. A total of 5,268 pounds of fish were produced with 7,980 pounds of feed at a cost of \$2,222.74. This gives a conversion factor of 1.515 and a cost of \$0.422 for each pound of fish produced.

#### **IMPROVEMENTS**

An electric furnace was installed in the shop so now material that should not be frozen in the winter can be stored there.

The kitchen in the Superintendent's residence was remodeled with a new kitchen sink cabinet.

#### **MISCELLANEOUS ACTIVITIES**

The hatchery grounds are owned by the Shoshone County Sportsmen Association so their meetings were attended by hatchery personnel to keep them up-to-date on all of the activities at the hatchery.

# **ACKNOWLEDGEMENTS**

Hatchery staffing for the year included:

Ivan Talbott, Hatchery Superintendent I; Mary Alexander, Temporary Laborer; Phillip Walker, CETA employee and Joe Welling, CETA employee.